Ashkan Behnam

List of Publications by Year
in descending order

61 papers	2,396 citations	218677 26 h-index	223800 46 g-index
61 all docs	61 docs citations	61 times ranked	4575 citing authors

#	Article	IF	Citations
1	Nanostructures for enhancing the SERS signal of a graphene monolayer in water and visible light absorption in a graphene monolayer. , 2019, , .		0
2	Ultra-low contact resistance in graphene devices at the Dirac point. 2D Materials, 2018, 5, 025014.	4.4	50
3	Characterization of Graphene Gate Electrodes for Metal-Oxide-Semiconductor Devices. MRS Advances, 2017, 2, 103-108.	0.9	1
4	High-Gain Graphene Transistors with a Thin AlOx Top-Gate Oxide. Scientific Reports, 2017, 7, 2419.	3.3	36
5	Plasmonic nanohole array for enhancing the SERS signal of a single layer of graphene in water. Scientific Reports, 2017, 7, 14044.	3.3	25
6	Gate tunneling current and quantum capacitance in metal-oxide-semiconductor devices with graphene gate electrodes. Applied Physics Letters, 2016, 109, .	3.3	12
7	SANTA: Self-aligned nanotrench ablation via Joule heating for probing sub-20 nm devices. Nano Research, 2016, 9, 2950-2959.	10.4	3
8	Forward-bias diode parameters, electronic noise, and photoresponse of graphene/silicon Schottky junctions with an interfacial native oxide layer. Journal of Applied Physics, 2015, 118, .	2.5	41
9	Annealing free, clean graphene transfer using alternative polymer scaffolds. Nanotechnology, 2015, 26, 055302.	2.6	114
10	Scaling of graphene integrated circuits. Nanoscale, 2015, 7, 8076-8083.	5.6	25
11	Nanoscale phase change memory with graphene ribbon electrodes. Applied Physics Letters, 2015, 107, .	3.3	35
12	High-field and thermal transport in 2D atomic layer devices. Proceedings of SPIE, 2014, , .	0.8	3
13	Hysteresis-Free Nanosecond Pulsed Electrical Characterization of Top-Gated Graphene Transistors. IEEE Transactions on Electron Devices, 2014, 61, 1583-1589.	3.0	31
14	Monolithic IIIâ€V Nanowire Solar Cells on Graphene via Direct van der Waals Epitaxy. Advanced Materials, 2014, 26, 3755-3760.	21.0	86
15	Reliability, failure, and fundamental limits of graphene and carbon nanotube interconnects. , 2013, , .		4
16	3D-nHD: A HydroDynamic model for trap-limited conduction in a 3D network. , 2013, , .		2
17	In_{<i>x</i>}Ga_{1â€“<i>x</i>}As Nanowire Growth on Graphene: van der Waals Epitaxy Induced Phase Segregation. Nano Letters, 2013, 13, 1153-1161.	9.1	101
18	Metal-semiconductor-metal photodetectors based on graphene/<i>p</i>-type silicon Schottky junctions. Applied Physics Letters, 2013, 102, .	3.3	191

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19	High-Field Electrical and Thermal Transport in Suspended Graphene. Nano Letters, 2013, 13, 4581-4586.	9.1	145
20	Gigahertz Integrated Graphene Ring Oscillators. ACS Nano, 2013, 7, 5588-5594.	14.6	67
21	High-Field Transport and Thermal Reliability of Sorted Carbon Nanotube Network Devices. ACS Nano, 2013, 7, 482-490.	14.6	35
22	Self-Aligned Nanotubeâ€"Nanowire Phase Change Memory. Nano Letters, 2013, 13, 464-469.	9.1	118
23	High field breakdown characteristics of carbon nanotube thin film transistors. Nanotechnology, 2013, 24, 405204.	2.6	13
24	Conductive preferential paths of hot carriers in amorphous phase-change materials. Applied Physics Letters, 2013, 103, .	3.3	25
25	Novel 3D random-network model for threshold switching of phase-change memories. , 2013, , .		6
26	High Field Breakdown of Carbon Nanotube Network Transistors. , 2013, , .		0
27	Impact of thermal boundary conductances on power dissipation and electrical breakdown of carbon nanotube network transistors. Journal of Applied Physics, 2012, 112, 124506.	2.5	13
28	New Technique of DNA Sensing: Nanoribbon Transverse Electrodes. Biophysical Journal, 2012, 102, 428a.	0.5	0
29	Transport in Nanoribbon Interconnects Obtained from Graphene Grown by Chemical Vapor Deposition. Nano Letters, 2012, 12, 4424-4430.	9.1	99
30	Pulsed nanosecond characterization of graphene transistors. , 2012, , .		5
31	Cascading Wafer-Scale Integrated Graphene Complementary Inverters under Ambient Conditions. Nano Letters, 2012, 12, 3948-3953.	9.1	53
32	Effect of carbon nanotube network morphology on thin film transistor performance. Nano Research, 2012, 5, 307-319.	10.4	59
33	Transport properties of CVD-grown graphene nanoribbon field-effect transistors. , 2011, , .		1
34	Experimental study of graphitic nanoribbon films for ammonia sensing. Journal of Applied Physics, 2011, 109, .	2.5	45
35	Electronic Transport in Graphitic Nanoribbon Films. ACS Nano, 2011, 5, 1617-1622.	14.6	13
36	Hydrogen Sensing Using Pdâ€Functionalized Multiâ€Layer Graphene Nanoribbon Networks. Advanced Materials, 2010, 22, 4877-4880.	21.0	313

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37	Temperature-dependent transport and<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mn>1</mml:mn><mml:mo>/</mml:mo><mml:mi>f</mml:mi></mml:mrow></mml:math>noise mechanisms in single-walled carbon nanotube films. Physical Review B, 2010, 81, .	3.2	18
38	Electronic properties of metal-semiconductor and metal-oxide-semiconductor structures composed of carbon nanotube film on silicon. Applied Physics Letters, 2010, 97, 233105.	3.3	12
39	Characterization of the metal-semiconductor and metal-insulator-semiconductor junctions between single-walled carbon nanotube films and Si substrates. , 2010, , .		1
40	Resistivity in percolation networks of one-dimensional elements with a length distribution. Physical Review E, 2009, 79, 012102.	2.1	41
41	Modeling and Measurements of Low Frequency Noise in Single-Walled Carbon Nanotube Films with Bulk and Percolation Configurations. , 2009, , .		2
42	Threshold Voltage Adjustment in Nanoscale DG FinFETs Via Limited Source/Drain Dopants in the Channel. IEEE Transactions on Electron Devices, 2009, 56, 2348-2353.	3.0	12
43	A computational study of tunneling-percolation electrical transport in graphene-based nanocomposites. Applied Physics Letters, 2009, 95, .	3.3	81
44	Characterization and modeling of low frequency noise in single-walled carbon nanotube film-based devices. , 2009, , .		0
45	1/ f noise in single-walled carbon nanotube films. Proceedings of SPIE, 2009, , .	0.8	1
46	Hydrogenation assisted nickel-induced lateral nano-crystallization of amorphous silicon on flexible plastic substrates at low temperatures. Thin Solid Films, 2008, 516, 7790-7796.	1.8	6
47	Experimental characterization of single-walled carbon nanotube film-Si Schottky contacts using metal-semiconductor-metal structures. Applied Physics Letters, 2008, 92, 243116.	3.3	53
48	Metal-semiconductor-metal (MSM) photodetectors based on single-walled carbon nanotube film-silicon Schottky contacts. Proceedings of SPIE, 2008, , .	0.8	0
49	Metal-semiconductor-metal photodetectors based on single-walled carbon nanotube filmâ€“GaAs Schottky contacts. Journal of Applied Physics, 2008, 103, 114315.	2.5	37
50	Percolation scaling of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mn>1</mml:mn><mml:mo>/</mml:mo><mml:mi>f</mml:mi></mml:mrow></mml:math>noise in single-walled carbon nanotube films. Physical Review B, 2008, 78, .	3.2	27
51	Nanolithographic patterning of transparent, conductive single-walled carbon nanotube films by inductively coupled plasma reactive ion etching. Journal of Vacuum Science & Technology B, 2007, 25, 348.	1.3	47
52	Computational study of geometry-dependent resistivity scaling in single-walled carbon nanotube films. Physical Review B, 2007, 75, .	3.2	81
53	Metal-Semiconductor-Metal (MSM) Photodetectors Based on Single-walled Carbon Nanotube Film-GaAs Schottky Contacts. Materials Research Society Symposia Proceedings, 2007, 1057, 1.	0.1	0
54	Percolation transport in single-walled carbon nanotube films: experiment and simulation. Proceedings of SPIE, 2007, , .	0.8	1

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55	Effects of nanotube alignment and measurement direction on percolation resistivity in single-walled carbon nanotube films. Journal of Applied Physics, 2007, 102, .	2.5	136
56	Low-temperature nickel-induced nano-crystallization of silicon on PET by MIC, hydrogenation and mechanical stress. Solid-State Electronics, 2006, 50, 1618-1624.	1.4	2
57	Nano-Crystalline Silicon Thin Film Transistors on PET Substrates Using a Hydrogenation-assisted Metal-induced Crystallization Technique. Materials Research Society Symposia Proceedings, 2006, 910, 6.	0.1	0
58	Geometry Dependent Resistivity in Single-walled Carbon Nanotube Films Patterned Down to Submicron Dimensions. Materials Research Society Symposia Proceedings, 2006, 963, 1.	0.1	0
59	Resistivity scaling in single-walled carbon nanotube films patterned to submicron dimensions. Applied Physics Letters, 2006, 89, 093107.	3.3	53
60	Nano-Scale MOSFET Devices Fabricated Using a Novel Carbon-Nanotube-based Lithography. Materials Research Society Symposia Proceedings, 2006, 913, 1.	0.1	1
61	2-D modeling of potential distribution and threshold voltage of short channel fully depleted dual material gate SOI MESFET. Solid-State Electronics, 2005, 49, 1341-1346.	1.4	19